

PATENT COOPERATION TREATY

PCT


INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 30 MAY 2006

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Applicant's or agent's file reference 0459PCT		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/JP2005/004587		International filing date (day/month/year) 09.03.2005	Priority date (day/month/year) 11.03.2004	
International Patent Classification (IPC) or national classification and IPC INV. F16H61/00				
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA ET AL				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 15.09.2005		Date of completion of this report 29.05.2006		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized officer Zevelakis, N Telephone No. +31 70 340-4813		



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2005/004587

Box No. I Basis of the report

1. With regard to the **language**, this report is based on
- ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-51 as originally filed

Claims, Numbers

1-28 as originally filed

Drawings, Sheets

1/12-12/12 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2005/004587

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-28
	No: Claims	1
Inventive step (IS)	Yes: Claims	4-6,8,9,12,21-28
	No: Claims	1-3,7,10,11,13-20
Industrial applicability (IA)	Yes: Claims	1-28
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement .

1. As seen in D1 the first and second rotary members are connected to each other in a power transmittable manner. It seems that due to the wording the applicant has chosen to formulate the features of his invention, the features of claim 1 can be seen to be disclosed by D1 even if the ways the systems according to D1 and the invention are operating are different, for example in D1, the power transmission may not **always** be achieved by the fluidic energy of operating oil as it is discharged from the oil pump, unless the rotary members constituting the constant displacement hydraulic pump rotate relatively with each other (a condition that would seem to render a corresponding claim as not novel).

A possible remedy to overcome the above objections would have been to include features of the claims concerning the way the transmission system works as at present claimed in further dependent claims (see paragraph 3.2).

2.1 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because document D1 discloses a power transmission system comprising the features of claim 1 and thus the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

- 2.2 Additionally, the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

Based in the fact that it is widely known (as also shown in D1) in the state of the art to use a hydraulic pump/motor arrangement as a torque transmitting system and even as a lock-up clutch, consideration should be taken that even a torque converter could be regarded as fitting the words of claim 1.

Document D2 shows a torque converter which can be seen to constitute a power transmission according to claim 1.

Although not explicitly formulated, the teaching of this document effectively would

seem shows what the applicant has chosen to formulate using the terms in independent claim 1.

Therefore, the subject matter of claim 1 is disclosed in document D1 so that it lacks novelty, or concerns one of many alternative ways to connect the engine to a "CVT" transmission thereby lacks an inventive step (see for example D2).

3. DEPENDENT CLAIMS 2-28

3.1 Dependent claims 2,3,7,10,11,13-20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D3 and the corresponding passages cited in the search report.

Claim 2 merely concerns a choice on the pump type and the relevant geometry (pumps like these are widely known in the state of the art see for example D3).

Claim 3 is disclosed by D1.

Claim 7 introduces a planetary gear set which is widely known in the state of the art to be used in all transmissions .

Claims 10,11 and 13-20 concern different details in the construction and geometry of power transmission like for example forward/reverse mechanism, inter- connections and prime mover choices. These choices cannot be considered as supporting an inventive step in their subject matter.

3.2 The combination of the features of dependent claims 4-6,8,9,12,21-28 are neither known from, nor rendered obvious by, the available prior art.